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TRANSFIXION OF THE LEFT ARYTENOID CARTILAGE BY A FISH-BONE—LOSS OF MOTION IN THE CORRESPONDING HALF OF THE LARYNX—ABSCESS; RECOVERY.

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The literature of foreign bodies in the air-passages goes back to the time when Anacreon perished by the grape which made his songs immortal. Substances in almost infinite variety, even the larynx itself,* have found their way into the windpipe; and their modes of entrance, the various phenomena to which they give rise, and the methods devised for their extraction, have furnished the material for separate treatises which abound in interesting reading and instructive detail.

As the following case, for which I am indebted to my friend, Dr. Whistler, of London, presents some features of unusual interest, I am induced to place it on record:

In the summer of 1879, while in charge of Dr. W.'s clinic at the Hospital for Diseases of the Throat and Chest, a young man applied to me on account of great difficulty of breathing and loss of voice, which had come on suddenly during his midday meal, and which he accordingly attributed to the impaction of a foreign substance in the throat. In the act of swallowing a mouthful of fish he had experienced an acute pain in the lower part of the throat and a convulsive sense of constriction, which lasted for some time and during which he was unable to "fetch his breath," as he inelegantly observed. After the violence of the paroxysm had subsided, he found that he was unable to swallow, and that his respiration had become seriously embarrassed. The

*Burow (Braithwaite's Retrospect, American edition, 1850, 21, p. 203, from Caspar's Wochenschrift) tells of a boy who inhaled the larynx of a goose while blowing through it in play. Strangulation took place, with a clear, whistling noise in breathing, followed at each expiration by "a hoarse noise not unlike that of the voice of a goose." Tracheotomy was performed and the larynx with difficulty extracted.

dyspnœa increased rapidly in severity, and the patient in great alarm sought relief at the hospital.

When he arrived at the clinic, some hours after the accident, his respiration had become labored and stridulous, exquisite pain in the throat precluded attempts at deglutition, and the voice was almost completely gone. The tissues external to the larynx were somewhat swollen, and manipulation of the organ itself gave rise to intense suffering. Nothing noticeable was observable in the oro-pharynx, nor could any foreign substance be detected in the glosso-epiglottic or pyriform sinuses. The left latero-posterior pharyngeal wall was greatly swollen and œdematous. Owing to the irritable state of the pharynx and the nervous condition of the patient, but especially to a large overhanging epiglottis, laryngoscopic examination was accomplished with great difficulty, and only after a number of unsuccessful attempts was a view finally obtained of the laryngeal cavity. The whole mucous membrane and both vocal cords were intensely hyperæmic—the left ventricular band greatly swollen and the corresponding cord immovable. The mucous membrane of the left ary-epiglottic ligament and that clothing the arytenoid cartilage of the same side were œdematous, the œdema of the cartilage giving rise to a large, globular swelling which diminished considerably the lumen of the larynx. No foreign body could be seen in the larynx or lower pharynx.

The œdematous portions of the larynx and pharyngeal wall were freely scarified with Mackenzie's laryngeal lancet with great and immediate relief to the patient. Probes and instruments of various kinds and sizes were next introduced into the œsophagus; but the most careful exploration failed to determine the presence of a foreign body. The introduction of forceps and hooks deep into the gullet was likewise negative in result; and, as the scarification had placed the man out of immediate danger, it was decided to abandon, for the time, the search for the foreign body. The patient was accordingly given a diaphoretic mixture and a soothing inhalation, with instructions to keep cracked ice constantly in the back of the throat and to return the following day. The next morning he reported great relief from his suffering, and a good night's rest; but deglutition continued painful and impossible. The pharyngeal wall was still slightly œdematous. The œdema of the ary-epiglottic fold and arytenoid cartilage had subsided; but on the posterior surface of the latter a small, round, intensely red tumor had developed, which, when touched with the probe, gave rise to acute pain. Thinking that a small bone had penetrated the cartilage behind and produced suppuration, the abscess was freely lanced with the guarded laryngeal knife. A few drops of blood and pus followed the incision but no foreign body could be detected.

The next day pus was discovered welling up from the œsophagus and posterior border of the arytenoid which had been incised the day before. The left ventricular band presented posteriorly a small, circumscribed swelling streaked on its surface with fine red lines. On attempted phonation, no motion could be detected in the corresponding side of the larynx. Under the guidance of the laryngeal mirror, a probe was introduced into the opening of the œsophagus and directed against the cartilage, where it impinged on a small, hard, projecting body. Attempts were then made with forceps and other instruments to dislodge it; but only with partial success, and I determined to defer the attempt at extraction until the suppurative process should render the object looser and easier of manipulation. The following day suppuration had increased and efforts at extraction

were repeated. After succeeding in loosening the body and accomplishing partial extraction, the patient was seized with a convulsive action of the muscles of the throat, and, finally, at the end of the paroxysm, expelled the foreign body—a fish bone about one-half an inch long and two or three lines in breadth—covered with blood and pus. The extremity of the bone, which had evidently been buried in the larynx, was sharp, rugged and more or less pointed; the other smooth and rounded. After its expulsion, the patient coughed up a small quantity of purulent matter much to his relief and satisfaction.

The throat was thoroughly cleansed with disinfectant solutions, the wound treated with stimulating applications, the larynx placed at perfect rest and the patient placed upon iced milk. With the removal of the bone, motion returne l gradually in the left side of the larynx, the dysphagia and injection of the laryngeal mucous membrane disappeared, and at the end of a fortnight, the excursions of the vocal cord were apparently perfect. The arytenoid cartilage was left in a somewhat thickened state and scarred on its posterior aspect from the cicatrization of the abscess cavity, and the swelling on the ventricular band remained (although the injection had disappeared); but the larynx performed its functions with perfect ease, and the patient was discharged from the clinic cured.

The points of interest in the case may be briefly summarized as follows:

1. *The situation and mode of entrance of the foreign body.* The bone had in all probability fallen lengthwise across the opening of the œsophagus, with its sharp, jagged end in front, and had been driven forcibly into the larynx in the convulsive acts of deglutition which followed its introduction with the food. It had doubtless passed along the lateral border of the arytenoid, partially transfixing the cartilage, through the muscular fibres of the thyro-arytenoideus externus, and buried its point in the left upper posterior wall of the ventricle, as indicated by the swelling and injection of the left ventricular band. The crico-arytenoid joint had apparently escaped uninjured.

2. *The loss of motion on the corresponding side of the larynx.* This was obviously due to the transfixion of the laryngeal structures in the path of the bone, and to the abrogation of muscular action induced partially, doubtless, by reflex spasm, partially by inflammatory action.

3 *The failure, at first, to detect its presence after careful examination,* due to the accompanying inflammatory swelling and œdema, and the very unusual depth to which the bone had penetrated the laryngeal tissues.

4. *The method of expulsion* (by suppuration) *and the happy termination of the case;* and 5, finally, *the obvious importance of laryngoscopic examination in all cases where a foreign body has gained admission to the throat.* It seems superfluous to dilate upon the dangers which must follow the rough manipulation to which the œsophagus and even the larynx are subjected without an intelligent appreciation of the situation derived from ocular inspection. In the above case, without such aid, scarification would not have been indicated or carried out, the patient would have been placed in peril, and the incautious use of instruments unguided by the eye would have almost certainly increased the œdema and precipitated tracheotomy. Without inspection with the mirror the œsophagus, and even the stomach, have been roughly invaded, while the offending substance nestles, secure from arrest, in the pyriform sinus. Even with its aid, the difficulty of extraction when the foreign body has been buried in the tissues can only be appreciated by those who have had some experience in their removal.